REMARKS

In the Office Action mailed on February 19, 2008, all of pending claims 1-25 were rejected. With this Amendment, claims 8 and 24 have been cancelled, and new claims 26 and 27 have been added. Upon entry of this Amendment, claims 1-7, 9-23, and 25-27 will be pending.

Amendments to the Claims

Independent claims 1 and 20 have been amended to include the features of claim 8, which has accordingly been cancelled.

Claim 22 has been amended to further clarify the beverage can end fabrication test. Support for the amendment may be found at paragraphs 58-60 of the published application. In addition, the features of claim 24 have been incorporated into claim 22.

New claim 26 recites the coating composition of claim 1 comprising from 60 to 95 weight percent (based on the solid content of the composition) of the blend of two or more polyester resins and from 5 to 40 weight percent (based on the solids content of the composition) of crosslinker. Support for these features may be found, for example, in claim 13 and paragraph 32 of the published application.

New claim 27 recites that the liquid of claim 20 comprises a food or beverage. Support for this feature may be found, for example, at paragraph 50 of the published application.

The Present Invention

The present invention provides a coating composition suitable for food-contact coatings of food or beverage cans. In preferred embodiments, the coating composition of the invention is particularly suited for use as a coating on a beverage can end. Beverage can ends are typically formed by coating a flat metal substrate on at least one surface with a coating composition, which is then cured to form a crosslinked coating. The cured substrate is then deformed, typically via stamping, into a riveted beverage can end that includes a rivet for attaching a pulltab thereto for purposes of opening a scored spout portion of the beverage can end. The contour of the rivet on a beverage can end is much more extreme than any contour typically present on a can end. To be suitable for use with such a riveted beverage can end, a coating should exhibit suitable flexibility

and adhesion to accommodate the severity of rivet fabrication, while also preferably exhibiting suitable corrosion resistance and feathering properties. Conventional can coatings typically do not possess the balance of properties required for this demanding end use.

In a preferred embodiment, the coating composition of the invention includes a special blend of polyesters that includes between about between about 60 and 90 weight percent of polyester resin having a Tg less than 50°C and between about 10 and 40 weight percent of polyester resin having a Tg greater than 50°C. None of the cited references discussed below disclose a coating composition including this blend.

35 U.S.C. 102 Rejections

Claims 1-15 and 18-25 stand rejected as being anticipated under 35 U.S.C. 102(b) by WO 98/47974 ("Heyenk").

a. **Claims 1-21**

Independent claims 1 and 20 have been amended to recite the features of dependent claim 8 – namely, a blend of polyesters including between about 60 and 90 weight percent of polyester resin having a Tg less than 50°C and between about 10 and 40 weight percent of polyester resin having a Tg greater than 50°C. As acknowledged in the Office Action, Heyenk does not disclose any polyester having a Tg greater than 50°C, let alone including such a polyester in an amount of between about 10 and 40 weight percent. Rather, Heyenk discloses a coating composition including a polyester blend that preferably includes a majority of polyester having a Tg greater than 45°C, with all such polyesters disclosed therein having a Tg of 50°C or less.[1]

Former dependent claim 8, now cancelled, was rejected under 35 U.S.C. 102(b) based on the assertion that "[a]lthough Heyenk does not specifically recite that the polyester have a Tg greater than about 50 °C the range of greater than 45 °C overlaps and substantially encompasses the range recited by applicant." Applicants respectfully traverse this rejection to the extant that it may apply to amended independent claims 1 and 20.

While Heyenk discloses using a polyester blend including a polyester having a "Tg greater than 45°C," this disclosure by itself is not sufficient to establish that Heyenk provides an

[1] See, e.g., page 3, lines 21-23 and the Examples throughout.

anticipating disclosure of polyesters having a Tg greater than 50°C. (See MPEP 2131.03(II).)[2] As described in MPEP 2131.03(II), the Federal Circuit in *Atofina v. Great Lakes Chem. Corp.*, 78 USPQ2d 1417, 1423 (Fed. Cir. 2006) held that a reference temperature range of 100-500°C did not describe the claimed temperature of 330-450°C with sufficient specificity to be anticipatory. The Federal Circuit so held even though there was overlap between the reference's preferred range of 150-350°C and the claimed range of 330-450°C. It is submitted that the disclosure of Heyenk is even less sufficient than the non-anticipatory disclosure of the *Atofina* reference. Not only does Heyenk fail to disclose any polyester having a Tg greater than 50°C, but Heyenk teaches that the blends disclosed therein preferably include the "high" Tg polyester (i.e., Tg > 45°C) in an excess amount relative to the "low" Tg polyester.[3] As such, unlike in *Atofina*, the preferred polyester weight ratio range of Heyenk does not even overlap that recited in claim 1. Thus, it is respectfully submitted that all of pending claims 1-7 and 9-21 are allowable over Heyenk.

b. Claims 22-25

Claims 22-25 stand rejected as being anticipated by Heyenk. Amended independent claim 22 recites a coating composition that, among other things:

(i) includes one or more polyester resins formed from polyol molecules that are substantially free of NPG;

(ii) is substantially free of mobile BPA and aromatic glycidyl ether compound; and

(iii) is capable of passing the beverage end fabrication test recited therein.

It is respectfully submitted that claims 22-25 are not anticipated by Heyenk for the reasons that follow.

With respect to (i) and (ii) above, Heyenk discloses that bisphenol A epoxy resin is a preferred crosslinker and all seven of the coatings of the Examples include bisphenol A and/or NPG.

With respect to (iii) above, Heyenk discloses that the coating composition described therein is suitable for a multitude of coating applications, including a wide array of both non-

[2] MPEP 2131.03(II) states that "[w]hen the prior art discloses a range which touches or overlaps the claimed range, but no specific examples falling within the claimed range are disclosed, a case by case determination must be made as to anticipation. In order to anticipate the claims, the claims subject matter must be disclosed in the reference with 'sufficient specificity to constitute an anticipation under the stature.'"

[3] See, e.g., page 3, lines 21-23 and the Examples.

packaging industrial coil coatings (e.g., coatings for fridges, ovens, facade cladding, boilers, etc.)[4] and packaging coatings.[5] While Heyenk generically asserts that the coatings are useful for "can ends," Heyenk does not state that the coatings are suitable for use on riveted beverage can ends. As discussed above, it is difficult to achieve a coating composition that exhibits the balance of properties required for beverage can ends, especially given the extreme contours of the rivet. In fact, coatings typically used for food can ends are generally not suitable for use as a beverage can end coating. Thus, given the highly specialized requirements of a beverage can end coating, a skilled artisan would not reasonably expect the generic-use Heyenk coating composition to possess the balance of coating properties required for beverage can ends.

Applicants have amended claim 22 to positively recite a key measure of such coatings. Namely, the claim now recites that the coating composition, when present on a beverage can end, passes less than 10 milliamps of current after being exposed for 4 seconds to an electrolyte solution containing 1% by weight of NaCl dissolved in water. A skilled artisan would not reasonably expect the composition of Heyenk to be capable of passing this test.

For the reasons discussed above, it is respectfully submitted that claims 22, 23, and 25 are allowable over Heyenk.

35 U.S.C. 103 Rejections

Claims 16 and 17 stand rejected under 35 U.S.C. 103(a) as being obvious over Heyenk in view of US 6,235,102 ("Parekh"). The Office Action acknowledges that Heyenk "is silent regarding the addition of an acrylate copolymer having glycidyl groups" and looks to Parekh to overcome this deficiency. However, even if the proposed combination were made,[6] the resulting coating composition would not include all of the features of independent claim 1 from which claims 16 and 17 depend. Neither reference discloses a composition including a polyester having a Tg greater than 50°C, let alone a blend of two or more polyesters including between about 10 and 40 weight percent of such polyester. It is accordingly submitted that claims 16 and 17 are allowable over Heyenk and Parekh.

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[4] See, page 7, line 29 – page 8, line 2.
[5] See page 8, lines 24-31.
[6] Applicants do not concede that a person of ordinary skill in the art would have been motivated to make the proposed combination.

New Claims

New dependent claims 26 and 27 are in condition for allowance since the independent claims that they depend from (i.e., claims 1 and 20, respectively) are in condition for allowance.

Conclusion

In view of the foregoing, Applicants respectfully submit that all of pending claims 1-7, 9-23, and 25-27 are in condition for allowance. A notice to that effect is respectfully requested. The Commissioner is authorized to charge any additional fees associated with this paper or credit any overpayment to Deposit Account No. 50-2070.

Respectfully submitted,

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